

## **2013 Lake Fausse Pointe/Dauterive Aquatic Vegetation Control Plan**

### **LDWF, Inland Fisheries**

Lake Fausse Pointe and Dauterive Lake, although named as two separate lakes, function as one naturally occurring lake and are addressed in this management plan only as Lake Fausse Pointe. Dauterive Lake is located north of Lake Fausse Pointe. Lake Fausse Pointe is part of the Teche-Vermillion basin located in southern Louisiana about 25 miles southeast of Lafayette, Louisiana. The surrounding topography is primarily flat with very little deviation. Originally the drainage was to the east towards the Atchafalaya River, but that is now contained by the West Atchafalaya Basin Protection Levee (WABPL). The watershed for this lake is also now restrained to the northwest between the Bayou Teche ridge and the WABPL. Water outside of this area can only drain into the lake through man-made control structures.

Bayou du Portage is joined by Bayou Alexandre before it enters the northern tip of Dauterive Lake. These two bayous drain urban and agricultural lands northwest of the lake.

Other tributaries that contribute water input into the lake are the Loreauville Canal, Tete Bayou and Cotton Canal. All three of these tributaries empty directly into the lower lake along the western and southern shorelines. Tete Bayou and the Cotton Canal are primarily drains for urban and agricultural lands. The Loreauville Canal, sometimes called the Teche-Lake Canal, connects the lake and Bayou Teche. There is a lock located about 1.5 miles west of the lake. The operation of this lock is controlled by the Teche-Vermillion Fresh Water District and procedure calls for this lock to be opened to relieve flood waters from the bayou into the lake.

Water from the WABPL Borrow Pit Canal enters both lakes at various places along the eastern side. The Borrow Pit Canal was created by excavation of material to construct the WABPL. Land use for the area that drains into the canal is primarily agricultural. Though water drains from these lands, the primary input of water is from Bayou Cortabateau. This input is controlled by two weirs and two structures operated by the Teche-Vermillion Fresh Water District. Water is pumped from the Atchafalaya River through the WABPL into Bayou Cortabateau. It flows south in that bayou and then flows are west and south in Bayou Teche and Bayou Vermillion, respectively, where it is used for irrigation. Some of the water flows through the Bayou Cortabateau – Borrow Pit Control Structure into the Borrow Pit Canal. Additional water flows into the Borrow Pit Canal during high flows through the Cortabateau weirs.

The outlet for Lake Fausse Pointe is the Charenton Drainage and Navigation Canal (CDNC) located adjacent to the WABPL. This canal flows to Bayou Teche where it is not restricted from flowing either upstream or downstream. The downstream flow splits again near the town of Baldwin. One portion flowing east again is the bayou. Bayou Teche is regulated east of this split by the locks on the west side of the Wax Lake Outlet that were completed in 1942. The other portion continues south in the CDNC to the Gulf of Mexico (West Cote Blanche Bay).

The outlet for the system is about 16 miles from the Gulf of Mexico (West Cote Blanche Bay) and is effectively tidal. Occasionally, wind tides as well as lunar tides will create water level oscillations many miles upstream.

## **Water body Information**

***Waterbody Type:***

Natural lake dates to pre-1700s.

***Parish/Location:***

Iberia, Upper St. Martin, St. Mary, LA

***Date Created:***

1700's

***Size (surface acres):***

Lake: 17,000 acres

***Average depth:***

5 feet

***Water shed: Water***

Watershed size and ratio: 158,080 acres (9.3:1 ratio)

***Control Structures:***

No control structures

***Owners:***

State of Louisiana (State water bottoms)

## **Past Control Measures:**

Louisiana Department of Wildlife & Fisheries conducts aquatic vegetation control in an effort to provide boater access to the primary bayous and canals in the Lake Fausse Point/Lake Dauterive area. In 2012, foliar herbicide applications were made on nuisance plants such as water hyacinth, alligator weed, primrose, and common salvinia in Fausse Point. A total of 283 gallons were applied to 529 acres. To control water hyacinth, alligator weed, primrose and cut grass, 2,4-D was applied at a rate of 0.5 gallons per acre. Diquat and glyphosate were applied at 0.75 gallons per acre to control common salvinia.

## **Aquatic Vegetation Status:**

Typically, aquatic vegetation is not a problem in the lake proper.

As of November of 2012, water hyacinth made up the majority of the vegetation observed in Fausse Point. Approximately 300 acres of water hyacinth is present. Other plants include common salvinia (100) acres, alligator weed (45) acres, and primrose (25 acres) which make up a small percent of emergent and floating plant coverage.

## **Limitations:**

1. Boat navigation is hampered by accretion of sediment throughout the complex
2. Drawdowns are not an option for management

## **Recommendations for 2013:**

### ***Biological Control***

N/A

### ***Chemical Control***

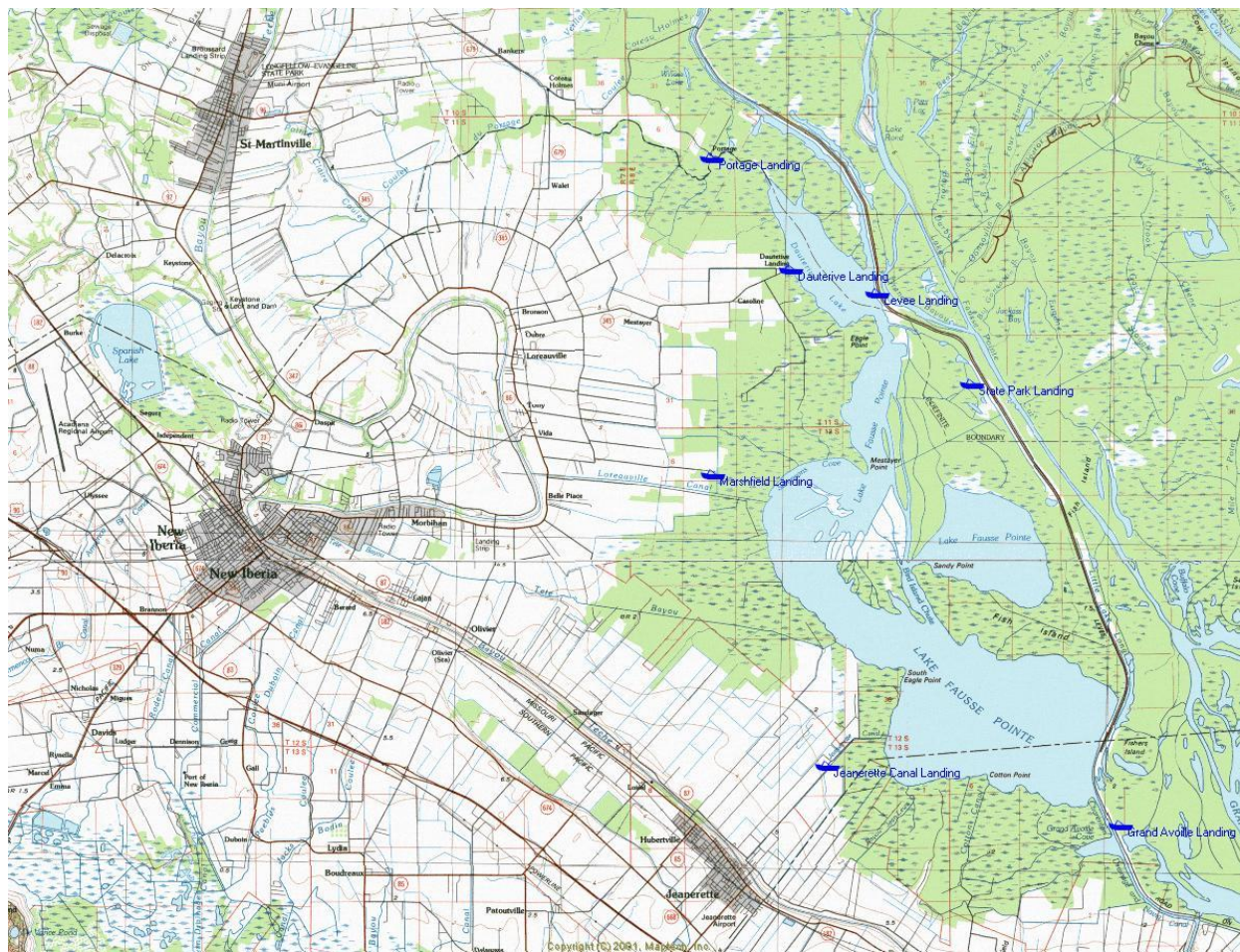
Foliar herbicide applications will be made on nuisance plants, such as water hyacinth, common salvinia, alligator weed and primrose in areas that are used by the public. To control water hyacinth, 2,4-D will be applied at a rate of 0.5 gallons per acre. Salvinia will be controlled with a mix of glyphosate (0.75 gal/acre) and diquat (0.25 gal/acre) with Aqua King Plus (0.25 gal/acre) and Thoroughbred surfactants (8 oz/acre) from April 1 to October 31. Outside of that time period, diquat at a rate of 0.75 gallons per acre will be used with 0.25 gallons per acre of a non ionic surfactant. Imazapyr will be used at 0.5 gallons/acre to control primrose. These herbicides will be applied as needed. All applications will be made with the addition of an appropriate surfactant at 0.25 gallons/acre.

### ***Physical Control***

N/A



## Lake Fausse Point/Dautrieve Map



## Survey of Aquatic Vegetation in Fausse Point State Park 9/19/2012

Personnel: J. David, M. Plonsky

Report by: M. Plonsky

A survey of aquatic vegetation revealed slight to moderate amounts of aquatic vegetation within the waterways of the state park with the greatest concentrations of aquatic vegetation being observed in the shallow terminal ends of the numerous oilfield production canals of which the majority of navigable and fishable area of the park is comprised. These mats of floating vegetation containing water hyacinth (*Eichhornia crassipes*), water primrose (*Ludwigia spp.*), cut grass (*Zizaniopsis miliacea*), water paspalum (*Paspalum repens*) and alligator weed (*Alternanthera philoxeroides*) were in areas of less than 3 feet deep.

Water hyacinth mats which were observed in the spring of 2012 within two large shallow (less than 3 feet) abandoned oil production locations were now clear due to herbicide application during the summer of 2012.

Slight amounts of water hyacinth were observed in the vicinity of the bridge into the park facility. This area was also treated with herbicide throughout the summer of 2012 and was noticeably less. The boatramp within the park was nearly clear of vegetation with only a very slight amount of common salvinia (*Salvinia minima*) observed. Slight amounts of common salvinia were observed within the waterways of the park with very thin amounts being seen congregating behind fallen tree limbs adjacent to the canal banks. Lake Fausse Point appeared free of significant aquatic vegetation with only a fringe of water hyacinth observed. A close inspection of the lake by boat was not capable due to the very shallow water depth of less than 2 feet found throughout the lake. No emergent vegetation was observed.

No submerged vegetation or giant salvinia (*Salvinia molesta*) was observed within the park waterways.

Water qualities collected are below as well as a map of observed vegetation locations.

| Date     | Temp  | SpCond | Salinity | Depth | pH   | Turbidity+ | Chlorophyl | d.o. percent | d.o. mg/l | station |
|----------|-------|--------|----------|-------|------|------------|------------|--------------|-----------|---------|
| 09/19/12 | 25.34 | 0.704  | 0.34     | 0.317 | 7.50 | 2.0        | 14.1       | 32.90        | 2.69      | 4189.00 |
| 09/19/12 | 24.89 | 0.685  | 0.33     | 2.590 | 7.18 | 27.8       | 15.1       | 20.60        | 1.70      | 4189.00 |
| 09/19/12 | 26.18 | 0.668  | 0.32     | 2.936 | 7.30 | 36.8       | 27.1       | 53.40        | 4.31      | 4190.00 |
| 09/19/12 | 26.75 | 0.660  | 0.32     | 0.592 | 7.29 | 14.9       | 30.1       | 64.20        | 5.13      | 4190.00 |
| 09/19/12 | 27.53 | 0.642  | 0.31     | 0.558 | 7.42 | 15.2       | 27.9       | 86.10        | 6.78      | 4191.00 |
| 09/19/12 | 26.14 | 0.642  | 0.31     | 4.388 | 7.35 | 55.0       | 24.8       | 46.80        | 3.78      | 4191.00 |
| 09/19/12 | 27.50 | 0.617  | 0.30     | 4.094 | 7.55 | 12.6       | 13.9       | 51.90        | 4.10      | 4188.00 |
| 09/19/12 | 28.47 | 0.606  | 0.29     | 0.585 | 7.56 | 8.5        | 20.0       | 89.00        | 6.90      | 4188.00 |
| 09/19/12 | 27.70 | 0.598  | 0.29     | 8.816 | 7.24 | -2.9       | -1.0       | 11.70        | 0.92      | 4186.00 |
| 09/19/12 | 29.15 | 0.587  | 0.28     | 0.806 | 7.35 | 2.8        | 24.8       | 101.40       | 7.76      | 4186.00 |



